

## JC20 Rec'd PET/PTO 2 3 SEP 2009

## **CLAIMS**

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- 1. A telephone communication system that includes a radiotelephone terminal of the type that includes a radiocommunication module (10) equipped with a radio modulation/demodulation circuit (12) and a data encryption/decryption module (28), where the radiocommunication module (10) includes a modem interface module (20) connected to the radiocommunication module (10) to control a modem (33), encryption/decryption module (28) that includes an encryption/decryption circuit (29), and a vocoder circuit (30) receiving speech data to be encrypted or decrypted from the radiocommunication module (10), where the encryption/decryption of the data is effected directly the encryption/decryption circuit (29) of the encryption/decryption module (28), characterised in that the radiocommunication module (10) includes at leastone control of the menu displayed on a display device of the terminal, allowing one to choose the conversation and transmission mode, and where the system includes:
- a reader included in the said encryption/decryption module (28) to receive a microcircuit media of the removable smartcard type (32),
  - an external modem (33) separate from the radiotelephone terminal,
- data communication resources (2, 25) connected to the radiocommunication module (10) to exchange data between the terminal and the external modem (33), and
- a first software switching resource (27) connected to the radio modulation/demodulation circuit (12) to route the data received by the terminal by means of the radio modulation/demodulation circuit (12) to the modem interface module (20) in order to effect a data transfer intended for the external modem (33), and conversely, to effect a transmission of data from the radio modulation/demodulation circuit (12) by routing the data received by the terminal by means of the mode interface module interface (20), where a second software switching resource (24) is provided between

the modem interface module (20) and the first software switching resource (27).

- 2. A telephone communication system according to claim 1, characterised in that the said first software switching resource (27) includes a switching (27) of the encrypted speech data to the modern interface (20) or to a modulation/demodulation circuit (12).
- 3. A telephone communication system according to claim 1 or 2, characterised in that the radiocommunication module (10) includes a switching (24) of the data from the modem (33) to the encryption/decryption module (28) or to the modulation/demodulation circuit (12), where the switching unit (24) from the radiocommunication module (10) is of the type controlled by software and placed between the said first software switching resource (27) and the modem interface (20)
  - 4. A telephone communication system according to one of claims 1 to 3, characterised in that the encryption/decryption module (28) is inserted in a unit cover linked to the terminal module by a contactor (31).

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5. A telephone communication system according to one of claims 1 to 4, characterised in that the encryption/decryption module (28) includes a data media reader for the exchange only of the user's encryption session keys.

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- 6. A telephone communication system according to one of claims 1 to 5 characterised in that the radiocommunication module (10) includes a serial connection (25) to an external modem (33).
- 7. A telephone communication system according to claim 6, characterised in that the serial connection (25) is of the RS232 wire type.

- 8. A telephone communication system according to claim 6, characterised in that the serial connection (25) is not of the wire type.
- A telephone communication system according to claim 8, characterised in that the serial connection (25), not of the wire type, is infrared.
  - 10. A telephone communication system according to claim 8, characterised in that the serial connection (25), not of the wire type, is 802.11 radio (WIFI).
  - 11. A telephone communication system according to claim 8, characterised in that the serial connection (24), not of the wire type, is bluetooth.

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12. A telephone communication system according to one of claims 1 to 11 characterised in that the conversation mode selected by the menu is a telephone call in plain language through the cellular radiotelephone network, directly connecting a DSP (16) on send or receive with a radio modulation/demodulation circuit (12) of the radiocommunication module (10).

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13. A telephone communication system according to one of claims 1 to 11, characterised in that the conversation mode selected by the menu is an encrypted telephone call through the cellular radiotelephone network, where this mode inserts the encryption/decryption module (28) by switching the switching unit (27) of the first software switching resource (27) between a DSP (16) and a radio modulation/demodulation circuit (12) of the radiocommunication module (28).

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14. A telephone communication system according to one of claims 1 to 11, characterised in that the conversation mode selected by the menu is an encrypted telephone call through the switched telephone network (4) or a

satellite (6) via an external modem (33) controlled by the radiocommunication module (10), where, , by switching the switching unit (27) of the first software switching resource (27), this mode inserts, between the DSP (16) and the encryption/decryption module (28), a vocoder circuit (30) that adapts the digital signals of the DSP (16) to the transmission speed of a modem before sending them to the encryption/decryption circuit (29) and diverting the signals coming from the external modem (33) exiting from the encryption decryption circuit to a loudspeaker (13) and those coming from a microphone (19) and exiting from the encryption/decryption circuit (29) to the external modem (33).

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15. A telephone communication system according to one of claims 1 to 11 characterised in that the mode of transmission of the data selected by the menu is a plain-language telephone transmission through the cellular radiotelephone network connecting the modem interface module (20) with a radio modulation-demodulation circuit (12) by switching the switching unit (24) of the radiocommunication module (10).

16. A telephone communication system according to one of claims 1 to 11, characterised in that the mode of transmission of the data selected by the menu is an encrypted telephone transmission through the cellular radiotelephone network, inserting the encryption/decryption module (28) between the modem interface module (20) and the radio modulation-demodulation circuit (12), by switching the switching unit (24) of the radiocommunication module (10).